

U.S. Department of the Interior
Bureau of Land Management
White River Field Office
220 E Market St
Meeker, CO 81641

DETERMINATION OF NEPA ADEQUACY (DNA)

NUMBER: DOI-BLM-CO-110-2010-0260-DNA

CASEFILE/PROJECT NUMBER: COC69169

PROJECT NAME: American Shale Oil RDD Pad Expansion for Drill Rig

LEGAL DESCRIPTION: Sixth Principal Meridian
T.2 S., R. 98 W., 6th PM
Sec. 21, E½SW, W½SE

APPLICANT: American Shale Oil, LLC

ISSUES AND CONCERNS: None

DESCRIPTION OF PROPOSED ACTION:

Background/Introduction: In January 2007, EGL Resources received the Oil Shale Research, Development and Demonstration (R,D&D) Lease COC69169. Since that time, ownership of the R,D&D lease has changed from EGL to American Shale Oil, LLC (AMSO). In 2008 AMSO received approval of their prospecting operations to drill geo-hydro wells located on three well pads; Test Pad, HB Pad and MWP-2. Also approved in 2008 was the “Addendum to the Plan of Operations for Oil Shale Research, Development and Demonstration (R,D&D) Tract COC-69169” to include retorting oil shale zones below the nahcolitic and aquifers zones of Green River Formation. In 2009, AMSO amended their prospecting operations to include a tomography well pad; TM Pad. Terms of the lease require the operator to submit a detailed Plan of Development (POD) for approval. AMSO submitted “Plan of Development for Oil Shale Research, Development and Demonstration (R,D&D) Tract Oil Shale Lease COC69169” a detailed POD, which BLM approved September 3, 2009.

Proposed Action: AMSO drilling contractor requires an extension on the northwest corner of the existing drill pad of approximately 65 feet X 60 feet and reconfiguration of the TM pad to accommodate the necessary drilling equipment for construction of the heater well. Less than 3,000 square feet (0.06 acres) will be outside of the identified area of disturbance. The reconfiguration TM pad requires no disturbance outside of the previously identified disturbance area. Total disturbance for the project remains less than 12 acres.

All applicable stipulations of “Section 25. Special Stipulations” of Oil Shale Research, Development and Demonstration (R,D&D) Lease COC69169 apply to the approved modifications.

LAND USE PLAN (LUP) CONFORMANCE REVIEW:

Name of Plan: White River Record of Decision and Approved Resource Management Plan (ROD/RMP).

Date Approved: July 1, 1997

 X The Proposed Action is in conformance with the LUP because it is specifically provided for in the following LUP decision(s): Minerals, Oil Shale page 2-6

Decision Language: “...At the discretion of the Secretary of the Interior, research scale lease tracts will be considered within lands available for oil shale leasing. Approval of research tracts will be based on the merits of the technology proposed.”

 The Proposed Action is in conformance with the LUP, even though it is not specifically provided for, because it is clearly consistent with the following LUP decisions (objectives, terms, and conditions):

Decision Language:

REVIEW OF EXISTING NEPA DOCUMENTS:

List by name and date all existing NEPA documents that cover the Proposed Action.

Name of Document: White River Resource Area Proposed Resource Management Plan and Final Environmental Impact Statement (PRMP/FEIS).

Date Approved: July 1, 1997

Name of Document: CO-110-06-118-EA,
EGL Resources Oil Shale Research, Development and
Demonstration (R,D&D) Tract Environmental Assessment

Date Approved: 11/09/2006

Name of Document: CO-110-2008-204-DNA
EGL (AMSO) RD&D Prospecting Permit

Date Approved: 09/17/2008

Name of Document: DOI-BLM-CO-110-2009-0123-DNA
AMSO Oil Shale RDD Prospecting Permit Revision

Date Approved: 04/09/09

Name of Document: DOI-BLM-CO-110-2009-0177-DNA
AMSO Oil Shale RDD Prospecting Permit Revision

Date Approved: 08/27/09

List by name and date any other documentation relevant to the Proposed Action (e.g., biological assessment, biological opinion, watershed assessment, allotment evaluation, and monitoring report).

Name of Document: U. S. Fish and Wildlife Service (USFWS) Biological Opinion
ES/GJ-6-CO-94-F017

Date Approved: 09/12/2006

NEPA ADEQUACY CRITERIA:

1. Is the new proposed action a feature of, or essentially similar to, an alternative analyzed in the existing NEPA document(s)? Is the project within the same analysis area, or if the project location is different, are the geographic and resource conditions sufficiently similar to those analyzed in the existing NEPA document(s)? If there are differences, can you explain why they are not substantial?

Documentation of answer and explanation: Yes, The proposed action increases the current disturbed surface acreage from 11.3 acres to 11.4 acres. This increased acreage remains below the 36 acres of surface disturbance analyzed in CO-110-06-118-EA.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the new proposed action, given current environmental concerns, interests, and resource values?

Documentation of answer and explanation: Yes, CO-110-06-118-EA has a sub-alternative, a no action alternative, and two alternatives considered but not analyzed in detailed.

3. Is the existing analysis valid in light of any new information or circumstances (such as, rangeland health standard assessment, recent endangered species listings, updated lists of

BLM-sensitive species)? Can you reasonably conclude that new information and new circumstances would not substantially change the analysis of the new proposed action?

Documentation of answer and explanation: Yes, CO-110-06-118-EA was approved 11/09/2006 and since then no new studies or resource assessments have been undertaken that changes the validity of the analysis.

4. Are the direct, indirect, and cumulative effects that would result from implementation of the new proposed action similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?

Documentation of answer and explanation: Yes CO-110-06-118-EA analyzed shale oil recovery using the CCR technology and more surface area disturbance as part of the proposed action. Therefore the proposed action does not alter what is analyzed in the EA and the cumulative impacts associated with the proposed action remain the same.

5. Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current proposed action?

Documentation of answer and explanation: Yes, collaboration and public involvement for the Oil Shale R,D&D projects included:

- a. Public open houses in four communities - Rangely, Meeker, Rifle and Grand Junction;
- b. Endangered Species Act Section 7 consultation with the US Fish and Wildlife;
- c. Tribal notification;
- d. 30-day public review periods on the EA (August 15 through September 18, 2006)
- e. Monthly coordination meetings in the BLM Colorado State Office with state and federal agencies on the progress in the R,D&D effort.

INTERDISCIPLINARY REVIEW: Identify those team members conducting or participating in the NEPA analysis and preparation of this work sheet (by name and title).

The proposed action was presented to, and reviewed by the White River Field Office interdisciplinary team on 09/21/2010.
Date

A list of resource specialists who participated in this review is available upon request from the White River Field Office.

REMARKS:

Cultural Resources: The proposed well pad expansion is in an area that has been inventoried at the Class III (100% pedestrian) level (Hoefer and Greenberg, 2006, Compliance Dated 5/12/2006) with no cultural resources identified in the identified pad expansion area. The proposed expansion will not impact any known cultural resources. (MRS 10/26/2010)

Native American Religious Concerns: No Native American Religious Concerns are known in the area, and none have been noted by Northern Ute tribal authorities. Should recommended inventories or future consultations with Tribal authorities reveal the existence of such sensitive properties, appropriate mitigation and/or protection measures may be undertaken. (MRS 10/26/2010)

Paleontological Resources: The proposed expansion is located in an area generally mapped as the Uinta Formation (Tweto 1979) which the BLM, WRFO has classified as a PFYC 4/5 formation meaning it is known to produce scientifically noteworthy fossil resources. The original pad location was monitored for fossil resources (Young 2009, Compliance Dated 5/15/2009) with no underlying rock formation encountered during initial construction. If excavation extends deeper into the soil to the west of the pad and the underlying rock formation is encountered there is a potential to impact noteworthy fossil resources. (MRS 10/26/2010)

Threatened and Endangered Wildlife Species: No wildlife-related issues or concerns. (LRB 10/19/2010)

Special Status Plant Species: No concerns. (JKS 9/22/2010)

REFERENCES CITED:

- Armstrong, Harley J., and David G. Wolny
1989 Paleontological Resources of Northwest Colorado: A regional Analysis. Museum of Western Colorado, Grand Junction, Colorado.
- Hoefer, Ted, and Marc. E. Greenberg
2006 A Class III cultural Resource Inventory of the Proposed EGL Oil Shale Development Tract, Rio Blanco County, Colorado. Cultural Resource Analysts, Inc., Longmont Colorado. (06-162-01)
- Tweto, Ogden
1979 Geologic Map of Colorado. United States Geologic Survey, Department of the Interior, Reston, Virginia.
- Young, Robert G.
2009 A Paleontological Survey of American Shale Oil's MWP 2, TM and HB Test pads on Their BLM Lease Tract, Black Sulphur Creek Area, Rio Blanco County,

MITIGATION:

1. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the authorized officer (AO). Within five working days the AO will inform the operator as to:

- whether the materials appear eligible for the National Register of Historic Places
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not necessary)
- a timeframe for the AO to complete an expedited review under 36 CFR 800-11 to confirm, through the State Historic Preservation Officer, that the findings of the AO are correct and that mitigation is appropriate.

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

2. Pursuant to 43 CFR 10.4(g) the holder of this authorization must notify the AO, by telephone, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the authorized officer.

3. The operator is responsible for informing all persons who are associated with the project operations that they will be subject to prosecution for knowingly disturbing paleontological sites, or for collecting fossils. If fossil materials are uncovered during any project or construction activities, the operator is to immediately stop activities in the immediate area of the find that might further disturb such materials, and immediately contact the AO. Within five working days the AO will inform the operator as to:

- whether the materials appear to be of noteworthy scientific interest
- the mitigation measures the operator will likely have to undertake before the site can be used (assuming in situ preservation is not feasible)

If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the AO will assume responsibility for whatever recordation and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation cost. The AO will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the AO that the required mitigation has been completed, the operator will then be allowed to resume construction.

4. If excavations extend deep enough to encounter the underlying rock formation to level the pad all work must stop and a paleontological monitor must be present for the completion of the pad expansion.

COMPLIANCE PLANS: “Plan of Development for **Oil Shale Research, Development and Demonstration (R,D&D) Tract** Oil Shale Lease COC69169”

Oil Shale Research, Development and Demonstration (R,D&D) Lease COC69169

NAME OF PREPARER: Paul Daggett

NAME OF ENVIRONMENTAL COORDINATOR: Kristin Bowen

DATE: 10/29/2010

ATTACHMENTS: Location Map

CONCLUSION

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Based on the review documented above, I conclude that this proposal in consort with the applied mitigation conforms to the land use plan and that the NEPA documentation previously prepared fully covers the Proposed Action and constitutes BLM's compliance with the requirements of NEPA.

SIGNATURE OF RESPONSIBLE OFFICIAL:



Field Manager

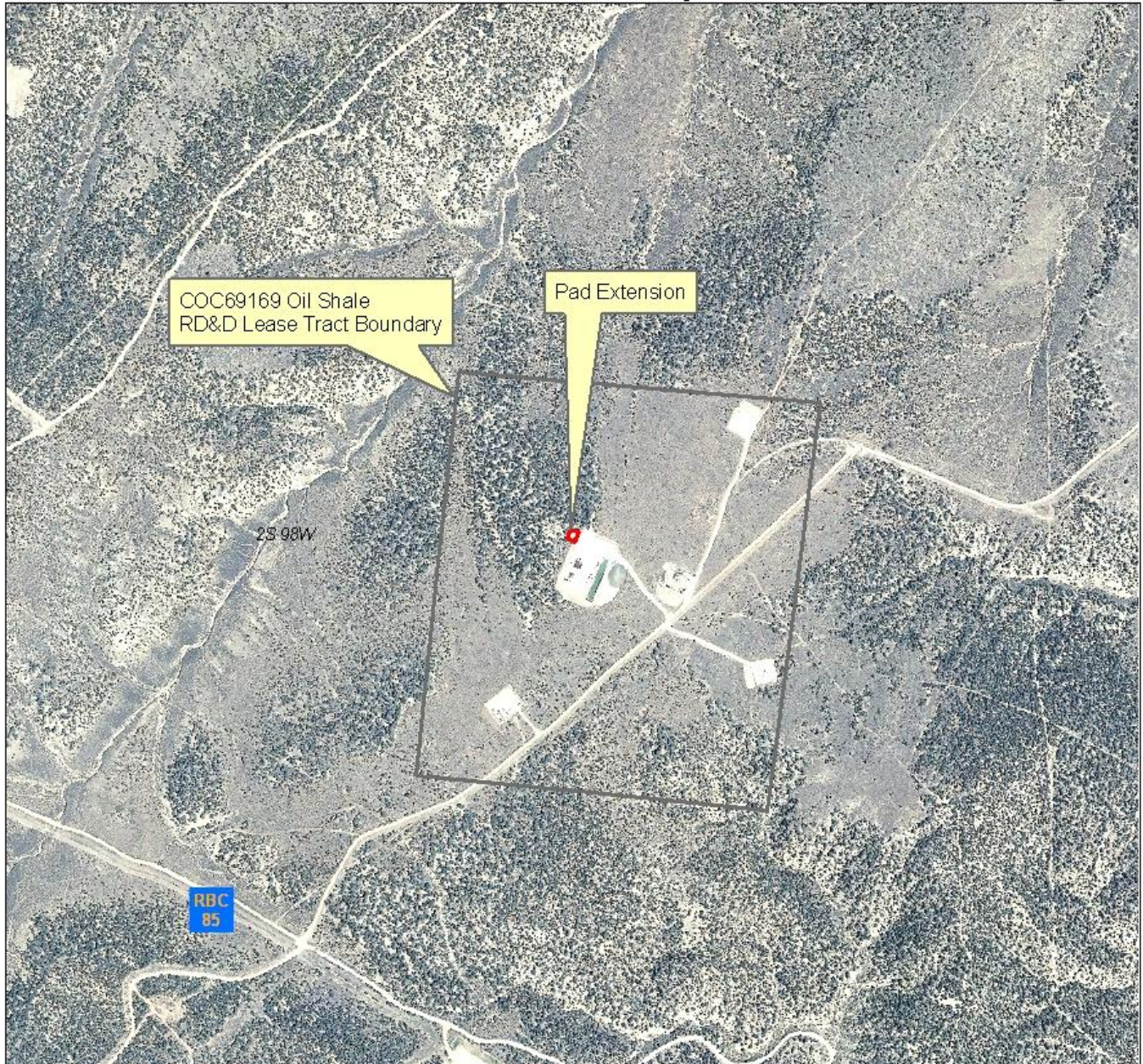
DATE SIGNED:

10/29/2010

Note: The signed Conclusion on this worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision.

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American Shale Oil RDD Pad Expansion for Drill Rig



**T.2 S., R. 98 W., 6th PM
Sec. 21, E $\frac{1}{2}$ SW, W $\frac{1}{2}$ SE**



09/21/2010

0 250 500 1,000
Feet

Sources:
BLM, USGS, CDOW, etc.

Disclaimer:
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